

### ABSTRACT

A substrate is etched in a vacuum enclosure in a process which generates plasma light emission. The process is monitored by passing emitted light via a window, a thin film narrow band filter and a "Fabry-Perot" etalon to a detector. The output signal from the detector is analyzed by shape recognition techniques to derive a measure of the progress of the process. The shape recognition preferable makes use of digital filtering and comparison with reference data derived from the theoretical analysis of a calibration run.

Art Unit: 2877

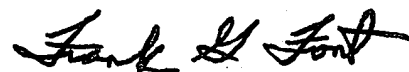
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J Connolly whose telephone number is 571.272.2412.

The examiner can normally be reached on 9:00 am - 7:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571.272.2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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